

We claim:

1. A system for interconnecting Fibre Channel Arbitrated Loop devices comprising:

a first Fibre Channel Arbitrated loop switch,
5 a second Fibre Channel Arbitrated loop switch,
 said first and second Fibre Channel Arbitrated Loop Switches including port logic, connectivity apparatus and route determination logic,
 the route determination logic creating routes based on the receipt of certain arbitrated Loop primitives,
10 whereby Said first and second loop switches are interconnected by multiple interswitch links and transfer frames on both ports.

2. The system for interconnecting Fibre Channel Arbitrated Loop devices of claim 1 wherein a first group of devices make connection through a first interswitch link
15 and a second group of devices make connection through a second, different interswitch link.

3. The system for interconnecting Fibre Channel Arbitrated Loop devices of claim 1 further including a trunk grouping table.

20 4. The system for interconnecting Fibre Channel Arbitrated Loop devices of claim 3 wherein the table is in the router.

25 5. The system for interconnecting Fibre Channel Arbitrated Loop devices of claim 3 wherein the trunk grouping table automatically learns the grouping.

6. The system for interconnecting Fibre Channel Arbitrated Loop devices of claim 5 wherein the table learns the grouping from the previous OPN from a Fibre Channel Arbitrated Loop device initiator.

30 7. The system for interconnecting Fibre Channel Arbitrated Loop devices of claim 6 wherein the device initiator is a SCSI initiator.

8. The system for interconnecting Fibre Channel Arbitrated Loop devices of claim 7 wherein the SCSI initiator is a server.

9. The system for interconnecting Fibre Channel Arbitrated Loop devices of 5 claim 3 wherein the trunk grouping table contains information on SCSI initiators.

10. The system for interconnecting Fibre Channel Arbitrated Loop devices of claim 3 wherein the trunk grouping table identifies a primary port to route frames for an initiator Arbitrated Loop device.

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11. The system for interconnecting Fibre Channel Arbitrated Loop devices of claim 3 wherein the trunk grouping table identifies a backup or duplicate port to route frames for an initiator Arbitrated Loop device.

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12. The system for interconnecting Fibre Channel Arbitrated Loop devices of claim 3 wherein the trunk grouping table identifies a duplicate port for a device.

13. The system for interconnecting Fibre Channel Arbitrated Loop devices of claim 3 wherein the trunk grouping table identifies an initiator ALPA .

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14. The system for interconnecting Fibre Channel Arbitrated Loop devices of claim 12 wherein the duplicate port is used as a failover port.

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15. The system for interconnecting Fibre Channel Arbitrated Loop devices of claim 3 wherein the information about the SCSI initiators includes one or more of the following: ALPA address for the initiator, assigned primary trunk group to route the frames, duplicate port to route the frames incase of an error with the primary trunk group.